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EXAMINER	
WANG, LEMING	

ART UNIT	PAPER NUMBER
2633	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/049,855	KOZAKI ET AL.	
	Examiner	Art Unit	
	Leming Wang	2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2/19/2002.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The terms "band ratio" is a relative terms which renders the claim indefinite and the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by *Yuki et al.* (US patent No: 6,778,557)

Regarding claim 1, *Yuki et al.* teach that an optical burst transmission/reception control system comprising:

a plurality of slave station apparatuses (10-1, 10-2, ..., Fig.1) which commonly use a transmission medium and a transmission band (Col.1, lines 19-23), and

a host station apparatus (20, Fig.3) which posts band allocation information for controlling allocation of use transmission bands (Fig.12, Col.19, lines 53-59) of said slave station apparatuses (10, Fig.2) to said slave station apparatuses, wherein said respective slave station apparatuses transmit data to said host station apparatus (Col.2, lines 50-54; Col.63, lines 38-39) based on the band allocation information posted from said host station apparatus (Col.2, 25-28),

wherein said host station apparatus has a band allocation control unit (27, Fig.3, 802 Fig.80) which generates the band allocation information including identifications of said slave station apparatuses (for examples, Col.13, lines 19-26; Col.62, lines 36-43) and types of data (Col.4, lines 20-23; Col.63, lines 33-34; Col.64, lines 4-5;) to be transmitted by said slave station apparatuses and posting the information to said plurality of slave station apparatuses (Col.2, lines 50-53), and

wherein said plurality of slave station apparatuses have a data transmission control unit (17, Fig.76) which identifies as to whether or not the band allocation information is band allocation information about the data types of their slave station apparatuses (Col. 64, lines 4-7), and when the band allocation information is the band allocation information about the data types of their slave station apparatuses (Col.64, lines 6-7), making control so as to transmit data to said host station apparatus according to the data types represented by the band allocation information (Col.48, lines 34-67; Col.64, lines 12-19; Col.63, lines 38-44).

Regarding claim 2, *Yuki et al.* further teach the host station apparatus allows the band allocation information to be included in a management information cell (for example, Col.14, lines 13-33, where Physical Layer Operation Administration Management (PLOAM) cell contains management information.) so as to post it to said respective slave station apparatuses.

Regarding claim 3, *Yuki et al.* teach the band allocation information is use authorizing information of time slots defined in a transmission direction from said slave station apparatuses to said host station apparatus (For example, slave stations send data information to master station based on the master's introduction in time slot is show in Fig.57; Col.69, 9-11; Col. 46, lines 14-18; Col.13, lines 2 and 6).

Regarding claim 4, *Yuki et al.* teach the data types are types of fixed-speed data which require a real-time property (Col.5, 9-15) and should be transmitted with constant period (Col.46, lines 37-42) and burst data which are generated by transmission (Col.24, lines 61-62, Col.59, lines 66-67, Col.60, lines 5-8) request intermittently or temporarily.

Regarding claim 5, *Yuki et al.* teach the host station apparatus further has a band request detection unit (711 and 712 Fig.82, Col.70, line 44-48, where "guaranteed-service input data" includes burst type of data according to Col.39, lines 44-49) which detects intermittent or temporal generation of band request (Col.70, lines 60-65), and

wherein said band allocation control unit (802 Fig.80 and 27 Fig.3), as initial setting, allocates a band (804 Fig.80) to fixed speed data to be transmitted with constant period (Fig.56, Col.46, lines 37-39), and when said band request detection unit (812 Fig.83) detects band request, said a band allocation unit allocates a band to burst data (Col.60, lines 12-15; Col.72, lines 5-11, where "guaranteed-service input data" includes burst type of data according to Col.39, lines 44-49) which are newly generated intermittently or temporarily.

Regarding claim 6, *Yuki et al.* teach the slave station apparatuses further have a band request unit (711 and 712 Fig.82, Col.70, lines 44-47, where "guaranteed-service input data" includes burst type of data according to Col.39, lines 45-49) which, when burst data are generated by transmission request intermittently or temporarily, requests

said host station apparatus to allocate a band to the burst data (Col.60, lines 12-15; Col.72, lines 5-11, where "guaranteed-service input data" includes burst type of data according to Col.39, lines 44-49).

Regarding claim 7, as it is understood in view of the above U.S.C 112 problem, *Yuki et al.* further teach the band allocation information is information about grouped plural data types (S =1, 2, .., SC, Fig. 46 and Fig. 47; INPUT PORT 1, INPUT PORT 2, INPUT PORT 3, ... INPUT PORT n, Fig.76; (24, Fig.3, Col.13, lines 27-32; Col.39, lines 44-49; Col. 61, line 6, Col.62, lines 50-52),

wherein said band allocation control unit (27, Fig.3, 802 Fig.80) presets (Col.67, 17-18;Col.69, lines 5-7) information, which represents a band ratio of the grouped plural data type (For example, Fig.66, band ratio of data to video is 2:3) in the band allocation information (Col.52, lines 63-67; Col.53, lines 61-62; Col.54, lines 15-17), and

wherein said data transmission control unit identifies as to whether or not the band allocation information is band allocation information about grouped data types (Col.64, lines 4-5) of their slave station apparatuses, and when the band allocation information is the band allocation information about the grouped data types of the slave station apparatuses (Col.64, lines 12-14), transmits data of the grouped plural types (Col.64, lines 14-19) represented by the band allocation information according to the band ratio (For example, Fig.66, band ratio of data to video is 2:3; Col.52, lines 63-67; Col.53, lines 61-62; Col.54, lines 15-17).

Regarding claim 8, *Yuki et al.* teach that the optical burst transmission/reception control system according to claim1, wherein when the band allocation control unit controls band allocation for a slave station apparatus which does not identify a type of data to be transmitted, said band allocation control unit posts band identification information (Col.63, lines33-37) including identification of the slave station apparatus to the slave station apparatus, and when the band allocation control unit controls band

allocation for a slave station apparatus which identify (Col.63, lines 4-5) a type of data to be transmitted (Col.64, lines 6-7) said band allocation control unit posts band allocation information including the identification of the slave station apparatus and the data type to the slave station apparatus (Col.63, lines33-37).

Regarding claim 9, *Yuki et al.* teach that a host station apparatus used in an optical burst transmission / reception control system (Fig.1) that includes

a plurality of slave station apparatuses (10-1, 10-2, ..., Fig.1) which commonly use a transmission medium and a transmission band (Col.1, lines 16-23), and;

a host station apparatus (20, Fig.3) which posts band allocation information for controlling allocation of use transmission bands (Fig.12, Col.12, lines 39-42; Col.19, lines 53-59) of said slave station apparatuses to said slave station apparatuses (10, Fig.2), wherein said respective slave station apparatuses transmit data to said host station apparatus based on the band allocation information posted from said host station apparatus (Col.2, 25-28),

said host station apparatus comprises a band allocation control unit (27, Fig.3) which generates the band allocation information including identifications (Col.63, lines33-37; Col.64, lines 1-3) of said slave station apparatuses and types of data (Col.63, lines33-37; Col.64, lines 4-5) to be transmitted by said slave station apparatuses, and posting the information to said plural slave station apparatuses (Col.63, lines 38-44).

Regarding claim 10, *Yuki et al.* teach that a slave station apparatus used in an optical burst transmission / reception control system (Fig.1) that includes

a plurality of slave station apparatuses (10-1, 10-2, ..., Fig.1) which commonly use a transmission medium and a transmission band (Col.1, lines 16-23), and

a host station apparatus (20, Fig.3) which posts band allocation information for controlling allocation of use transmission bands (Fig.12, Fig.29, Col.19, lines 53-59) of said slave station apparatuses to said slave station apparatuses, wherein said respective slave station apparatuses transmit data to said host station apparatus based on the band allocation information posted from said host station apparatus (Col.2, 25-28; Col.63, 38-44),

said slave station apparatus comprises a data transmission control unit (17 Fig.2 and Fig.76) which identifies as to whether or not the band allocation information is band allocation information about a data type of its slave station apparatus (Col.64, lines 4-12), and when the band allocation information is the band allocation information about the data type of the slave station apparatus (Col.64, lines 12-14), making control so as to transmit data to said host station apparatus (Col.64, lines13-19).

Regarding claim 11, *Yuki et al.* teach that an optical burst transmission/reception control method, in which a plurality of slave station apparatuses (10-1, 10-2, ..., Fig.1) commonly use a transmission medium and a transmission band (Col.1, lines 16-23), and a host station apparatus (20, Fig.3) posts band allocation information (Fig.12; Col.12, lines 39-42; Col.19, lines 53-59) for controlling allocation of use transmission bands of said slave station apparatuses to said slave station apparatuses (10, Fig.2), and said respective slave station apparatuses transmit data (Col.2, lines 50-53) to said host station apparatus (20, Fig.3) based on the band allocation information posted from the host station apparatus (Fig.12, Col.19, lines 53-59), the method comprising:

the initial post step of previously posting the band allocation information including identifications of said slave station apparatuses (Col.62, lines 37-38; Col.35, lines 56-59) and types of data (Col.63, lines 33-37; Col.36, lines 44-46, Col.37, lines 8-19) to be transmitted by said slave station apparatuses from said host apparatus to said plurality of slave station apparatuses (Col.1, lines 16-23);

the holding step of holding the band allocation information (For example, in Fig.79, Col.67, lines 45-67, where is discussed about band allocation information is held, extracted, and performed.) posted at the initial post step by means of said slave station apparatuses;

the post step of posting the band allocation information including instruction of bands from said host station apparatus to said slave station apparatuses (Col.2, lines 23-28; Col.12, lines 39-42); and

the data transmission control step of identifying(Col.63, lines 33-37) as to whether or not the band allocation information posted at the post step is band allocation information about data types (Col.64, lines 4-15) of said slave station apparatuses respectively by means of said slave station apparatuses, and when the band allocation information is the band allocation information about the data types of said slave station apparatuses (Col.64, lines 12-14), making control to transmit data to said host station apparatus (Col.64, lines14-19) according to the data types represented by the band allocation information (Col.63, lines 38-44).

Regarding claim 12, *Yuki et al.* teach that the optical burst transmission/reception control method according to claim 11, wherein the band allocation information posted at the initial post step (Fig.40, Col.35, lines 56-59; Col.36, lines 44-46, Col.37, lines 8-19, 22-28; Col.63, lines 33-37; Col.62, lines 37-38) and at the post step is information about a plurality of grouped data types (Col.39, lines 45-48).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject

matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over by *Yuki et al.* (US patent No: 6,778,557) in view of by *Lobbett et al.* (US patent No: 6,201,622)

Regarding claim 13, *Yuki et al.* teach the optical burst transmission/reception control method according to claim 11, further comprising:

the band request step of transmitting band request of the burst data to said host station apparatus (712 Fig.82, Col.70, lines 44-48, where "guaranteed-service input data" includes burst type of data according to Col.39, lines 44-49),

wherein when said host station apparatus detects the band request, said post step posts the band request including the band allocation information about the burst data to said slave station apparatuses (Col.72, lines 5-14, where "guaranteed-service input data" includes burst type of data according to Col.39, lines 42-49).

Yuki et al. differ from the invention in that *Yuki et al.* do not teach the detection step of detecting as to whether or not burst data are input into said slave station apparatuses by said slave station apparatuses. However, *Lobbett et al.* teach a method to detect the start of a data burst (Col.5, lines 11 –12). Therefore, it would have been obvious to a person having ordinary skill in the art at the time if the invention to incorporate a method of *Lobbett et al.* into the point to multipoint communication system of *Yuki et al.* to detect the input of a data burst to start a band allocation request for the burst data.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Sriram* , "Bandwidth allocation, transmission scheduling, and

congestion avoidance in broadband asynchronous transfer mode network" is showing a method to handle calls with widely different bandwidth by classifying each cell call in accordance with certain signal characteristics, such as required bandwidth and sensitivity to delay.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leming Wang whose telephone number is 571 272 3030. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 571 272 3112. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lw

M. R. SEDIGHIAN
PRIMARY EXAMINER